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9-14-100 GENERAL

9-14-101 Description: The purpose of this rule is to limit sulfur dioxide (SO_2) emissions from the thermal processing of petroleum coke.

9-14-200 DEFINITIONS

9-14-201 Petroleum Coke Calcining Kiln: A refractory lined cylindrical device that that rotates on its own axis to drive off contaminants from green petroleum coke by bringing the coke into contact with heated gas.

9-14-202 Petroleum Coke: A carbonaceous solid derived from the thermal processing of petroleum products.

9-14-203 Petroleum Coke Calcining: The thermal processing of petroleum coke through a kiln.

9-14-204 Average SO_2 Emission Factor: Average unabated SO_2 emission factor in units of pounds of SO_2 per ton of green coke processed as determined by the APCO. The initial Average SO_2 Emission Factor is equal to 12.81 pounds of SO_2 per ton of green coke processed. The emission factor may be updated by the APCO using additional inlet source test data; the APCO shall base its calculation of any such updated emission factor on the average of the available and representative inlet SO_2 source test data on a pounds per hour basis divided by the green coke feed rate on a tons per hour basis.

9-14-205 80% Control Level: The 80% control level shall be based on the owner/operator's green coke throughput records, and shall be calculated by using the following equations:

For One Kiln:

80% control level (tons SO_2 per year) = Annual Green Coke Processed by Kiln (tons per year) x Average SO_2 Emission Factor x (1 - 0.8) x 1/2000.

For All Kilns:

80% control level (tons SO_2 per year) = Annual Green Coke Processed by All Kilns (tons per year) x Average SO_2 Emission Factor x (1 - 0.8) x 1/2000.

9-14-300 STANDARDS

9-14-301 Emission Limit: Effective January 1, 2019, the owner/operator of a petroleum coke calcining operation shall operate at least one Petroleum Coke Calcining Kiln subject to this standard such that the Petroleum Coke Calcining Kiln does not emit SO_2 at a rate that exceeds 144 pounds per hour, averaged over any consecutive 24 hours. Effective January 1, 2019, the owner/operator shall operate at least one Petroleum Coke Calcining Kiln such that the total SO_2 emitted from the kiln does not exceed 385 tons on a calendar year basis or the owner/operator shall demonstrate that actual SO_2 emissions from at least one Petroleum Coke Calcining Kiln is less than or equal to the 80% Control Level. Effective January 1, 2020, the owner/operator shall operate both Petroleum Coke Calcining Kilns such that each kiln does not emit SO_2 at a rate that exceeds 144 pounds per hour on a 24-hour average basis. Effective January 1, 2020, the owner/operator shall operate all Petroleum Coke Calcining Kilns such that the SO_2 emitted from the Kilns does not exceed an average of 385 tons per Kiln, per calendar year; alternatively, the owner/operator shall demonstrate that actual SO_2 emissions from all Kilns are less than or equal to the 80% Control Level.

No later than 180 days after this rule is adopted, the owner/operator shall notify the APCO, in writing, to identify which Petroleum Coke Calcining Kiln will be upgraded first to comply with 9-14-301 requirements.

9-14-400 ADMINISTRATIVE REQUIREMENTS

9-14-401 Schedule for SO_2 Control Upgrade Study: The owner/operator of a Petroleum Coke Calcining Operation subject to this standard shall conduct a study, using an independent engineering firm, to determine the changes required to meet the 80% Control Level for All Kilns. The study shall also quantify the total initial capital costs and recurring operating costs required meet the 80% Control Level. The owner/operator shall complete the study and submit it to the APCO no later than December 31, 2017.

9-14-402 Schedule for Injection System Upgrades: No later than January 1, 2019, the owner/operator of a Petroleum Coke Calcining Operation subject to this standard shall upgrade the dry sorbent injection system of at least one Petroleum Coke Calcining Kiln to comply with the requirements of 9-14-301. No later than January 1, 2020, the owner or operator of any Petroleum Coke Calcining Kiln subject to this standard shall upgrade the dry sorbent injection system for all Petroleum Coke Calcining Kilns to comply with the requirements of 9-14-301.

9-14-500 MONITORING AND RECORDS

9-14-501 Continuous Emission Monitoring and Recordkeeping Requirements: The owner/operator shall use Continuous Emission Monitors to measure SO_2 emissions from each Petroleum Coke Calcining Kiln. The owner/operator shall be subject to the applicable Continuous Emission Monitor requirements in Regulation 1. Effective one year from the date of adoption of this rule, the owner/operator shall maintain emission monitoring records for a period of 5 years and make them available to the APCO upon request.

9-14-502 General Monitoring and Recordkeeping Requirements: Effective January 1, 2019, the owner/operator of a petroleum coke calcining operation shall maintain records of the annual green coke processed in each kiln and all emissions data used to develop the APCO approved average SO_2 emission factor. Effective January 1, 2019, the owner/operator of a petroleum coke calcining operation shall monitor the dry sorbent injection rate on an hourly basis for each kiln using an APCO approved methodology. Effective January 1, 2019, the owner/operator shall use a calibrated APCO approved load cell to monitor the mass of sorbent injected per hour for the first kiln to comply with the requirements of 9-14-301. Effective January 1, 2020, the owner/operator shall use a calibrated APCO approved load cell to monitor the mass of sorbent injected per hour for each kiln. The owner/operator shall calibrate the dry sorbent injection system on an annual basis using an APCO approved methodology. The owner/operator shall maintain records of the dry sorbent injection rate on an hourly basis. Effective January 1, 2020, the owner/operator shall prepare monthly summaries for the amount of sorbent material purchased, the amount of spent sorbent hauled away on a daily basis and the amount of sorbent material injected on hourly basis. All records and summaries subject to this provision shall be retained for 5 years and shall be submitted to the APCO upon request.

9-14-503 Annual Demonstration of 80% Control Recordkeeping Requirements: When using the annual demonstration of 80% Control Level to comply with 9-14-301 requirements, the owner/operator shall prepare the annual demonstration by February 1st of the subsequent calendar year. The owner/operator shall maintain records of the annual demonstrations prepared to comply with the requirements of 9-14-301 for a period of 5 years and make them available to the APCO upon request.

9-14-600 MANUAL OF PROCEDURES

9-14-601 Emissions Monitoring: Any facility that operates a petroleum coke calcining facility subject to Section 9-14-301 shall provide, properly install, maintain in good working order, and operate the following emission monitoring equipment:

601.1 Continuous Emissions Monitoring: A continuous emission monitoring system (CEMS) for each kiln, to demonstrate compliance with the provision of this rule for sulfur dioxide (SOx) emissions. The CEMS shall meet the requirements of the District Manual of Procedures, Volume V, Continuous Emission Monitoring, Policy and Procedures. Each CEMS shall complete a minimum of one cycle of operation sampling, analyzing, and data recording for each successive fifteen (15) minute period.